Quik-Spec Power Module Panel

All-in-one elevator disconnect

Product description:

The Quik-Spec™ Power Module Panel (PMP) is an all-in-one multi-elevator disconnect switch available in configurations to meet virtually any shutdown and disconnect requirement.

Features and options:

- 400-800 amp bus MLO and/or main fused switch*
- 200kA RMS short-circuit current rating
- Feeder switches 30-200 amp, 600Vac with Class J clips[1]
- Copper bus

Optional features:

- Control power transformer with fuses and blocks
- Fire safety interface relay
- Key to test switch
- Pilot light – "ON"
- Isolated neutral lug[2]
- Mechanically interlocked auxiliary contact for hydraulic elevators with battery backup (5 amp 120Vac rated)
- Fire alarm voltage monitoring relay (to monitor shunt trip voltage)
- NEMA 3R enclosures available (consult factory)
- Phase failure and undervoltage relay available (consult factory)
- For added safety, use the Bussmann SAMI™ fuse covers to improve maintenance personnel protection [OSHA 1910.335(A)(2)(ii)][3]

Agency information:

- UL 67 enclosed and dead-front switches

* Contact Bussmann for applications greater than 800 amps.

[1]Class J fuses not included.

[2]Oversized 200% rated neutral option available where required by excessive non-linear loads.

[3]Through 100A.

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Panel components

	Voltage/amp ratings
Component 1 (required)	
Control power transformer (CPT) Std. 100VA with PRI & SEC Fuse (120V secondary)	208Vac 240Vac 480Vac 600Vac
Component 2 (required)	
Fire safety interface Relay (3PDT, 10 amp, 120V)	24Vdc Coil 120Vac Coil
Component 3 (optional)	
Key to test switch	120Vac
Component 4 (optional)	
Pilot light – "ON"	red green white
Component 5 (optional)	
Isolated neutral lug (full capacity)[2]	30-60A 100A 200A
Component 6 (required)	
Mechanically interlocked auxiliary contact for hydraulic elevators with battery back-up (5 amp 120Vac rated)	1 NO & 1 NC
Component 7 (optional)	
Fire alarm voltage monitoring relay (To monitor shunt trip voltage)	Single-pole

[1]Class J fuses not included.
[2]Oversized 200% rated neutral option available where required by excessive non-linear loads.
[3]Through 100A.

Power module panel

Ratings (Amps) (Panelboard bus)	Catalog number
400	PMP-400
600	PMP-600
800	PMP-800

Standard shunt trip ratings: 30-100A, 200A & 400-800A

Voltage	Max inrush	Max ontime[1]	Momentary inrush
120Vac, 60Hz	4 amps	1.5 cycles	140VA

[1]Will handle up to 447VA inrush.

Maximum horsepower rating of switch

	Feeder switch amp rating				Main fused switch amp rating		
Voltage	**30A**	**60A**	**100A**	**200A**	**400A**	**600A**	**800A**
208Vac-3P	5	10	15	40	75	100	150
240Vac-3P	5	10	20	40	75	125	150
480Vac-3P	10	25	40	75	150	250	350
600Vac-3P	15	30	50	100	200	350	450

Maximum horsepower rating of switch with Class J fuses, medium-duty inrush (NEC® Code Max 175%). Recommended Hp to calculate fuse and switch size.

The above table can be used for estimating switch size for motor loads based upon the motor horsepower. Size the switch so that the Class J, time-delay fuses are used at a minimum of 150% of motor full-load amps or next size up. For general applications, excluding wound rotor and DC motors, NEC® 430.52 allows sizing at 175% of motor full-load amps or the next standard size per NEC® 240.6.

Note: In sizing the fuses, the motor FLA, is per NEC® Table 430.250, not per nameplate information. Inrush currents of motors may vary, consult motor manufacturer data for correct sizing. On elevator applications, motor load plus auxiliary loads need to be considered. Follow elevator manufacturer's recommendation for correct fuse sizing.

Module switch options, X dimensions and lug data

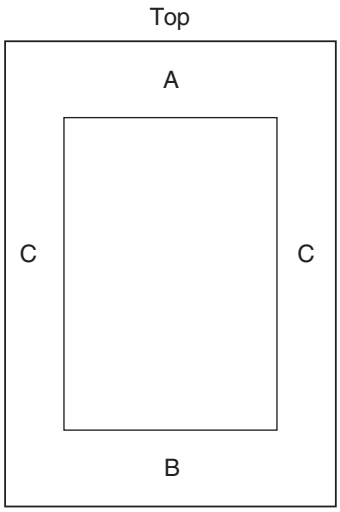
Switch Amp rating	Mounting	"X" units	Conductors per phase	Terminal wire range
600V – branch switch unit[1]				
30	Horizontal	6X	1	#14 - 1/0 Al or Cu
30-30	Horizontal	6X	1	#14 - 1/0 Al or Cu
60	Horizontal	6X	1	#14 - 1/0 Al or Cu
60-60	Horizontal	6X	1	#14 - 1/0 Al or Cu
100	Horizontal	6X	1	#14 - 1/0 Al or Cu
100-100	Horizontal	6X	1	#14 - 1/0 Al or Cu
200	Horizontal	6X	1	#4 - 300 kcmil Al or Cu
200-200	Horizontal	6X	1	#4 - 300 kcmil Al or Cu
600V - main fused switch				
400	Horizontal	1X	1 or 2	(1) 250 - 750kcmil (2) 3/0 - 250 kcmil Al or Cu
600	Horizontal	3X	1 or 2	(1) #4 - 600kcmil (2) 1/0 - 250 kcmil Al or Cu
800	Vertical	9X	1 or 2	(1) 250 - 750kcmil (2) 3/0 - 250 kcmil Al or Cu

[1]May mix switch amps 30 to 200A: 30/60, 30/100, 30/200, etc.

Main lugs terminal data standard mechanical lugs

Main amp rating	Conductors per phase	Terminal wire range	Min. wire bending space (inches)[2] A	B	C
400	1 2	3/0 - 750 kcmil Al or Cu 3/0 - 250 kcmil Al or Cu	14.00	10.625	7.00
600	2	#4 - 500 kcmil Al or Cu	14.00	10.625	7.00
800	4	#2 - 600kcmil Al or Cu	18.00	10.625	7.00

[2]Wire bending space can vary per local codes and standards requirements.



Standard panel box dimension with available panel space

Amps	Dimensions (inches) H x W x D	"X" units[3]
400	57 x 40 x 10.4	18X
600	73.5 x 44 x 10.4	30X
800	90 x 44 x 10.4	40X

[3]Where X Units exceed panel space, use feed-through lugs and second enclosure.

Feed-through lugs

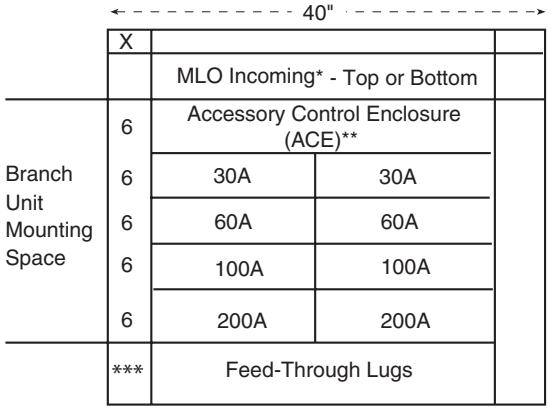
Amps	"X" Space
400	3X
600	3X
800	7X

Wire bending space per NEC® Table 312.6(A)

Accessory control enclosure

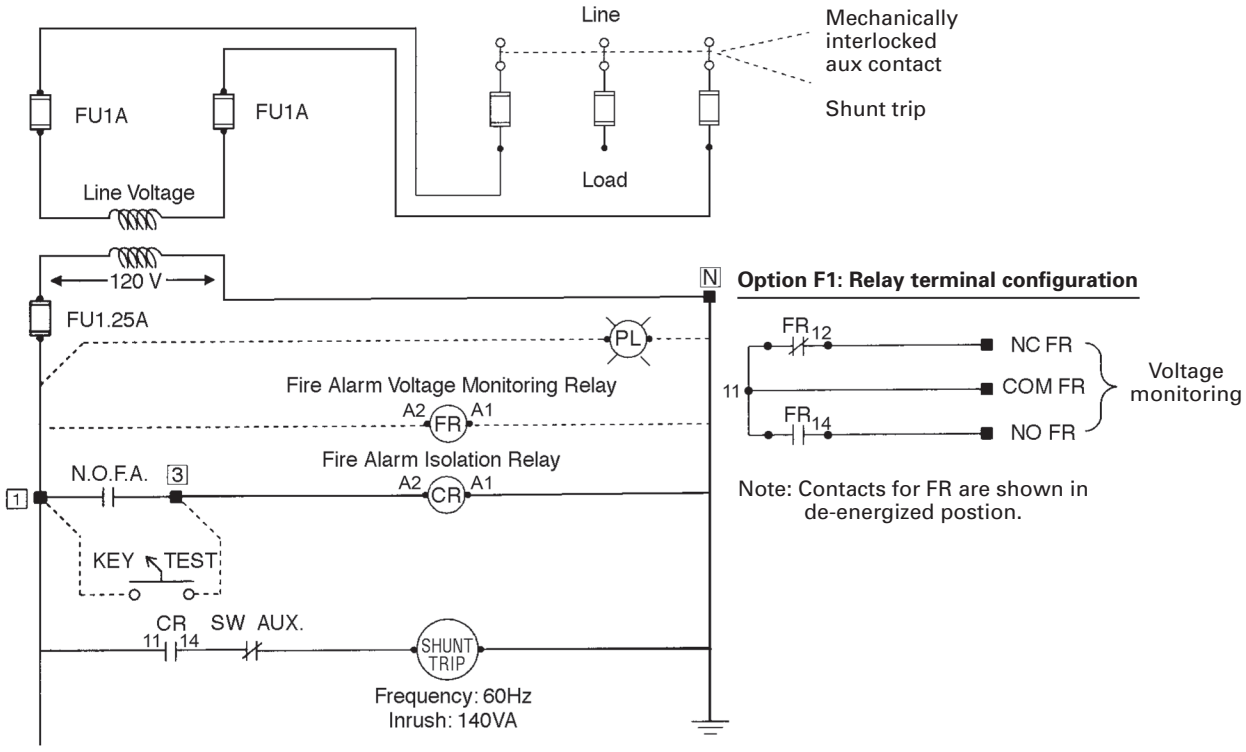
ACE	6X

Each ACE will handle individual control power transformers and isolation relays for up to four switch units.



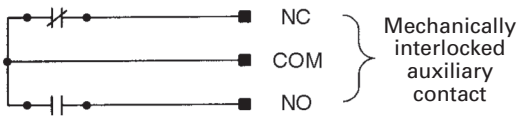
* MLO standard, x-space does not affect brand x-space available.
** One ACE unit per four shunt trip module switches.
*** See table.

Typical control with wiring options for fire safety interface (option R1)



Wiring diagram

Option A: battery backup terminal configuration



To connect the battery lowering for hydraulic elevator, connect to points NC and COM.

Note: Contacts for mechanically interlocked auxiliary contact are shown in the energized position.

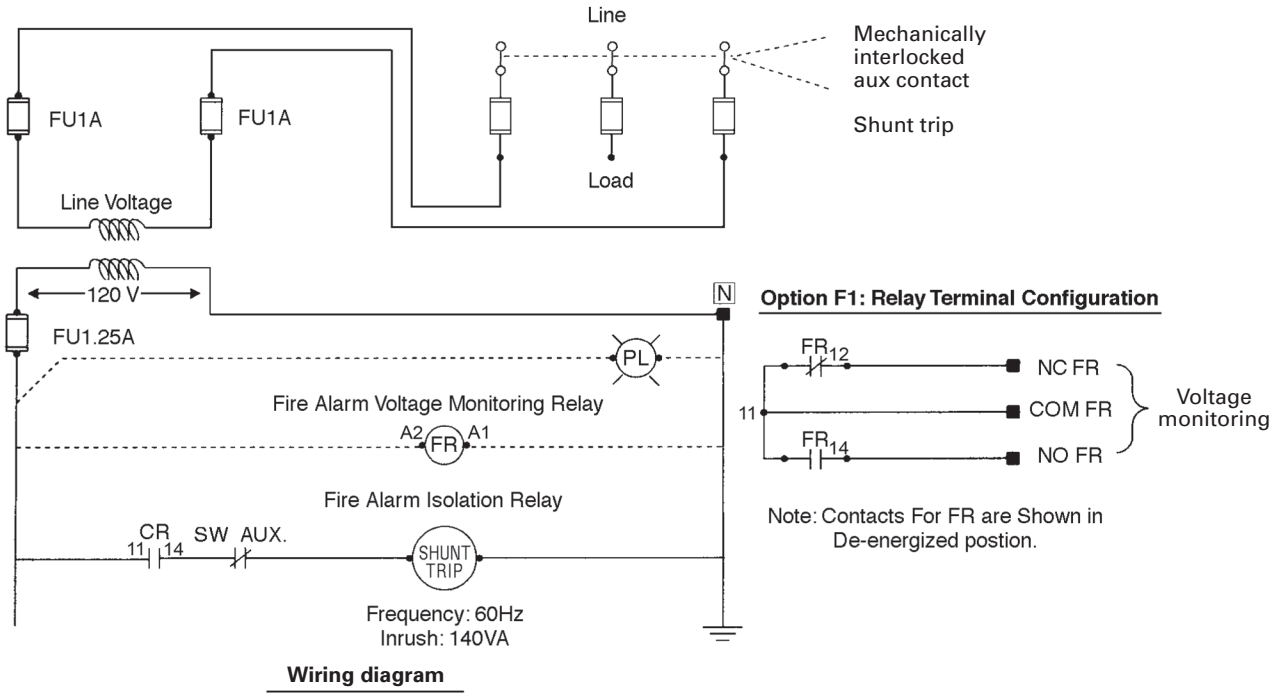
Legend

N.O.F.A.	Normally Open Fire Alarm contacts supplied from the fire alarm system to initiate the shunt trip.
Shunt Trip	Solenoid for remote trip of switch, which is activated by the closing of the fire alarm contacts or key test switch.
Option R1	Fire Safety Interface Relay that is operated at 120Vac from secondary of transformer. No additional power needed.
CR	Control Relay used to isolate the N.O.F.A. contacts from the duty of the shunt trip.
FR	Fire Alarm Voltage Monitoring Relay used to monitor presence of voltage in switch from a remote location (Fire Alarm Control Panel).
PL	Pilot Light to visually indicate presence of voltage on outside of switch enclosure.
CPT	Control Power Transformer used to step down line voltage to 120Vac to power shunt trip coil.
SW Aux.	Normally closed contact when switch is closed. Opens as power switch opens.
Key Test	Key-to-Test switch used to operate shunt trip from the outside of switch enclosure. Can be used for trouble-shooting and inspection.

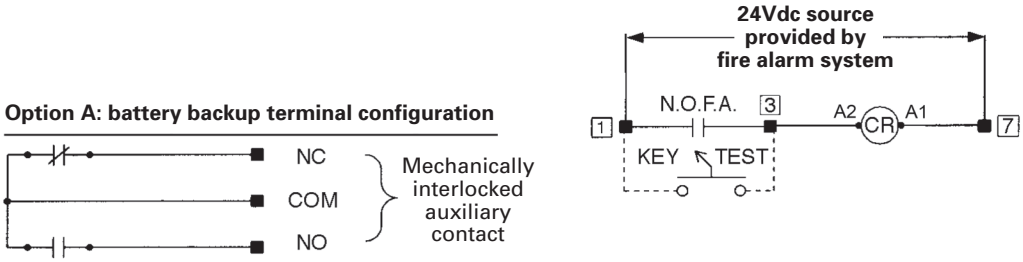
Mechanically Interlocked Auxiliary Contact – Contact used to disconnect secondary source of power.

- ■ Terminal block connection point.
- ● Pre-wired connection point.

Typical control with wiring options for fire safety interface (option R2)



Wiring diagram



To connect the battery lowering for hydraulic elevator, connect to points NC and COM.

Note: Contacts for mechanically interlocked auxiliary contact are shown in the energized position.

Legend

N.O.F.A. Normally Open Fire Alarm contacts supplied from the fire alarm system to initiate the shunt trip.
Shunt Trip Solenoid for remote trip of switch, which is activated by the closing of the fire alarm contacts or key test switch.
Option R2 Fire Safety Interface Relay that is operated at 24Vdc from fire alarm system. May require an additional power source to be needed.
CR Control Relay used to isolate the N.O.F.A. contacts from the duty of the shunt trip.
FR Fire Alarm Voltage Monitoring Relay used to monitor presence of voltage in switch from a remote location (i.e., Fire Alarm Control Panel).
PL Pilot Light to visually indicate presence of voltage on outside of switch enclosure.
CPT Control Power Transformer used to step down line voltage to 120Vac to power shunt trip coil.
SW Aux. Normally closed contact when switch is closed. Opens as power switch opens.
Key Test Key-to-Test switch used to operate shunt trip from the outside of switch enclosure. Can be used for trouble-shooting and inspection.

Mechanically Interlocked Auxiliary Contact Contact used to disconnect secondary source of power.

- ■ Terminal block connection point.
- ● Pre-wired connection point.

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